

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claims 1-15 (cancelled)

Claim 16 (currently amended): An isolated nucleic acid fragment comprising:

(a) a nucleotide sequence encoding a polypeptide having sugar transport protein activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of ~~SEQ ID NO:18, 20, 22, 24, 26 and 28~~ SEQ ID NO:20 have at least 66% sequence identity; or

(b) the full-length complement of the nucleotide sequence of (a).

Claim 17 (currently amended): The isolated nucleic acid fragment of claim 16, wherein the amino acid sequence of the polypeptide and the amino acid sequence of ~~SEQ ID NO:18, 20, 22, 24, 26 and 28~~ SEQ ID NO:20 have at least 90% sequence identity.

Claim 18 (currently amended): The isolated nucleic acid fragment of claim 16, wherein the amino acid sequence of the polypeptide and the amino acid sequence of ~~SEQ ID NO:18, 20, 22, 24, 26 and 28~~ SEQ ID NO:20 have at least 95% sequence identity.

Claim 19 (currently amended): The isolated nucleic acid fragment of Claim 16 wherein the nucleotide sequence of the fragment corresponds to ~~any of the~~ nucleotide sequence ~~sequences~~ set forth in ~~SEQ ID NO:17, 19, 21, 23, 25 and 27~~ SEQ ID NO:21.

Claim 20 (previously presented): A recombinant DNA construct comprising the isolated nucleic acid fragment of any of Claims 16 - 19 operably linked to at least one regulatory sequence.

Claim 21 (previously presented): A vector comprising the isolated nucleic acid fragment of claim 16 - 19.

Claim 22 (previously presented): A method for transforming a cell, comprising transforming a cell with the recombinant DNA construct of claim 20.

Claim 23 (previously presented): A cell comprising the recombinant DNA construct of Claim 20.

Claim 24 (previously presented): A method for producing a plant comprising transforming a plant cell with the isolated nucleic acid fragment of any of claims 16 - 19 and regenerating a plant from the transformed plant cell.

Claim 25 (withdrawn): A plant comprising the recombinant DNA construct of claim 20.

Claim 26 (withdrawn): A seed comprising the recombinant DNA construct of claim 20.

Claim 27 (withdrawn): An isolated polypeptide having sugar transport activity, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:18, 20, 22, 24, 26 and 28 have at least 75% identity.

Claim 28 (withdrawn): The polypeptide of claim 27, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:18, 20, 22, 24, 26 and 28 have at least 66% identity.

Claim 29 (withdrawn): The polypeptide of claim 27, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:18, 20, 22, 24, 26 and 28 have at least 90% identity.

Claim 30 (withdrawn): The polypeptide of claim 27, wherein the amino acid sequence of the polypeptide and the amino acid sequence of SEQ ID NO:18, 20, 22, 24, 26 and 28 have at least 95% identity.

Claim 31 (withdrawn): A method for isolating a polypeptide encoded by the polynucleotide of Claim 16 comprising isolating the polypeptide from the cell of claim 23.